Appl. No. 10/803,945   Docket No. TSM-37
Amendment
Response to Office Action mailed January 22, 2008

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-6.   (Canceled)

7.   (Currently Amended) In a computer system including (a) a host computer, (b) a storage system coupled to and separate from a said storage system which has the storage system having a first volume for storing data received from the host computer, and a second volume that is a pair of said first volume and that stores data that is replicated from said first volume, and a storage control unit for controlling the data replication from the said first volume to said second volume, and (c) a data protection apparatus coupled to and separate from the host computer and the storage system, the data protection apparatus comprising:

    an event detection unit in said data protection apparatus for detecting an event occurrence;

    a replication stopping unit in said data protection apparatus for instructing said storage control unit to stop the replication of data of said first volume to said second volume, when said event detection unit detects an event; and

    an illegal intrusion detection unit for detecting an illegal intrusion into said host computer;

2

Appl. No. 10/803,945   Docket No. TSM-37
Amendment
Response to Office Action mailed January 22, 2008

~~wherein said event detection unit receives a detection of the illegal intrusion from said~~

~~illegal intrusion detection unit; and~~

~~when said event detection unit receives the detection of the illegal intrusion, said~~

~~replication stopping unit instructs said storage control unit to stop data replication from said~~

~~first volume to said second volume that is the pair of said first volume~~

___wherein said replication stopping unit instructs said storage control unit to stop the

data replication from said first volume to said second volume when said event detection unit

receives an event detection of an illegal intrusion from an illegal intrusion detection unit, in

the host computer, which detects the illegal intrusion into said host computer.

8.   (Canceled)

9.   (Currently Amended) A data protection apparatus in a computer system according to

Claim 7,

_____wherein: said <u>host</u> computer ~~system~~ further includes a computer virus detection unit

for detecting a computer virus ~~in said storage system~~;

~~said event detection unit receives the detection of the computer virus from said~~

~~computer virus detection unit; and~~

<u>wherein</u> when said event detection unit receives <u>a</u> ~~the~~ detection of the computer virus,

<u>from said computer virus detection unit,</u> said replication stopping unit instructs said storage

3

Appl. No. 10/803,945   Docket No. TSM-37
Amendment
Response to Office Action mailed January 22, 2008

control unit to stop data replication from said first volume to said second volume that is the

pair of said first volume.

10.   (Currently Amended) A data protection method for protecting data in a computer

system including (a) a host computer,b) a storage system coupled to and separate from a-said

storage system which has said storage system having a first volume for storing data received

from the host computer, and a second volume that is a pair of said first volume and that

stores data that is replicated from said first volume, and a storage control unit coupled to and

separate from said storage system for controlling data replication from said first volume to

said second volume, and (c) a data protection apparatus coupled to and separate from the host

computer and the storage system, wherein said the data protection method comprises steps of:

        detecting an intrusion into said host computer; and

        instructing said storage control unit to stop data replication from said first volume to

said second volume when said intrusion is detected; and.

        stopping data replication from said first volume to said second volume in response to

said instructing.

11.   (Currently Amended) A program recorded on a computer readable medium embodied

on a storage medium that can be read by an information processing apparatus for making the

information processing apparatus perform data protection in a computer system including a

host computer coupled to and separate from a storage system which has a first volume for

4

Appl. No. 10/803,945   Docket No. TSM-37
Amendment
Response to Office Action mailed January 22, 2008

storing data received from the host computer and a second volume that is a pair of said first

volume and that stores data that is replicated from said first volume, and a storage control unit

coupled to and separate from said storage system for controlling data replication from said

first volume to said second volume, wherein said program makes said information processing

apparatus perform processes of:

    detecting that an intrusion into the host computer has occurred;~~and~~

    instructing said storage control unit to stop data replication from said first volume to

said second volume when said intrusion is detected; and

    <u>stopping data replication from said first volume to said second volume in response to</u>

<u>said instructing</u>.

12.-13. (Canceled)

14.   (Currently Amended) In a computer system including a host computer coupled to and

separate from a storage system which has a first volume for storing data received from the

host computer and a second volume that is a pair of said first volume and that stores data that

is replicated from said first volume, and a storage control unit coupled to and separate from

said storage system for controlling data replication from the first volume to said second

volume, a data protection apparatus coupled to and separate from the host computer and the

storage ~~apparatus~~<u>system</u> comprising:

    an event detection unit for detecting an event occurrence; and

5

Appl. No. 10/803,945   Docket No. TSM-37
Amendment
Response to Office Action mailed January 22, 2008

      a replication stopping unit for instructing said storage control unit to stop data

replication from said first volume to said second volume when said event detection unit

detects an event;

      wherein said computer system further comprises an alteration detection unit that reads

given data in a plurality of said second volumes to detect respective differences between the

given data; and

      the event detected by said event detection unit is a detection result of the differences

between the given data, with said detection result being received from said alteration

detection unit.

15.   (Previously Presented)   A data protection apparatus in a computer system

according to Claim 14, wherein:

      write data to said first volume is replicated by said storage control unit to said second

volume with a delay of a given time.

16.   (Previously Presented)   A data protection apparatus in a computer system

according to Claim 14, wherein:

      as said second volume, a plurality of second volumes are provided; and

      said storage control unit switches a replication destination of write data of said first

volume, at given time intervals among said plurality of second volumes.

6

Appl. No. 10/803,945   Docket No. TSM-37
Amendment
Response to Office Action mailed January 22, 2008

17. (Previously Presented)   A data protection apparatus in a computer system

according to Claim 16, wherein:

data replicated to said plurality of second volumes is further replicated to another

plurality of said second volumes.

18. (Canceled)

19. (Previously Presented)   A data protection apparatus in a computer system

according to Claim 14, wherein:

said storage control unit further controls communication between said host computer

and said first volume; and

said data protection apparatus instructs said storage controller to stop communication

between said host computer and said first volume when said event detection unit detects said

event.

20.-21. (Cancelled)

22. (Previously Presented)   A data protection apparatus in a computer system according

to Claim 7, further including a path disconnection unit for instructing said storage control unit

7

to stop communication between said host computer and said storage system, when said event detection unit detects an event.

23.   (Canceled)

24.   (Currently Amended)   A data protection method according to Claim 10, further including the step of instructing said storage control unit to stop communication between said host computer and said storage system, when said when said intrusion is detected.

25.   (Canceled)

26.   (Currently Amended)   A program _recorded on a computer readable medium,_ embodied on a storage medium according to Claim 11, further including said program making said information processing apparatus perform the process of instructing said storage control unit to stop stopping communication between said host computer and said storage system, with said storage control unit when said when said intrusion is detected.

27.   (Canceled)

28.   (Currently Amended)   A data protection apparatus in a computer system according to Claim 7 14, further including a path disconnection unit for instructing said storage control unit

8

Appl. No. 10/803,945   Docket No. TSM-37
Amendment
Response to Office Action mailed January 22, 2008

to stop communication between said host computer and said storage system, when said event

detection unit detects an event.

29. (New) A data protection apparatus in a computer system according to claim 7,

    wherein said data replication from said first volume to said second volume is delayed

by a predetermined time after said host computer writes data to said first volume.

9